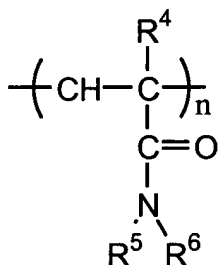


AMENDMENTS TO THE CLAIMS

Claims 1-17 are canceled.

18. (original) A non-linear polymer comprising repeat units having the formula:



where  $\text{R}^4$  is H or an alkyl group; and  $\text{R}^5$  and  $\text{R}^6$ , independently, are selected from the group consisting of hydrogen, alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, heteroalkyl, heterocycloalkyl, substituted heterocycloalkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, alkoxy, aryloxy, and combinations thereof; and  $n$  is 10 or more; and

wherein said polymer is soluble or dispersible in water or in aqueous medium, having a weight average molecular weight of at least about 75,000 and having a polydispersity index no greater than about 2.0, and wherein said polymer comprises essentially no linking or star center groups.

19. (original) A polymer according to claim 18 wherein said polymer consists essentially of said units.

20. (original) A polymer according to claim 18 wherein said polymer is a copolymer.

21. (original) A polymer according to claim 18 wherein said polymer is a block copolymer.

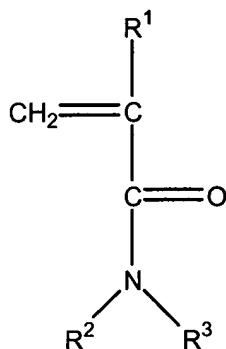
22. (original) A polymer according to claim 18 wherein said polymer is a random copolymer.

23. (original) A polymer according to claim 18 wherein said polymer has a star architecture, with a weight average molecular weight of greater than 75,000 daltons and an

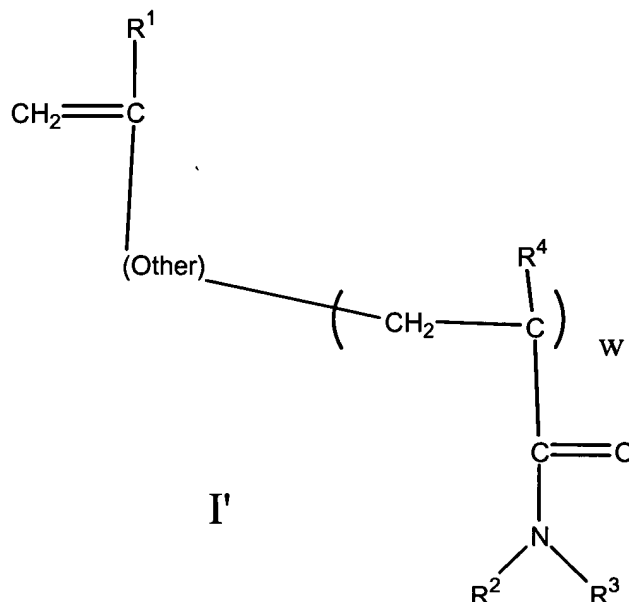
aqueous solution containing about 5 % w/v of said polymer has a viscosity of less than about 600 cps.

Claims 24-50 are canceled.

51. (New) A polymer comprising repeat units having the formula I or I':



I



I'

where  $R^1$  is selected from the group consisting of hydrogen or alkyl; and  $R^2$  and  $R^3$ , independently, are selected from the group consisting of hydrogen, alkyl, substituted alkyl, cycloalkyl, substituted cycloalkyl, heteroalkyl, heterocycloalkyl, substituted heterocycloalkyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, alkoxy, aryloxy, and combinations thereof;  $w$  is a number up to 1000; and Other is a linker and contains up to 20 non-hydrogen atoms; and

wherein said polymer is soluble or dispersible in water or in aqueous medium, having a weight average molecular weight of at least about 75,000 and having a polydispersity index that is in the range of about 1.0 to about 2.0.

52. (New) The polymer of claim 51, wherein the polymer is a block copolymer.

53. (New) The polymer of claim 51, wherein the polymer is linear.

54. (New) The polymer of claim 51, wherein the polymer is a graft copolymer.
55. (New) The polymer of claim 51, wherein the polydispersity index is not more than about 1.8.
56. (New) The polymer of claim 51, wherein the polydispersity index is not more than about 1.5.
57. (New) The polymer of claim 51, wherein the polymer has a molecular weight of at least 300,000 daltons.
58. (New) The polymer of claim 51, wherein the polymer has a molecular weight of at least 500,000 daltons.
59. (New) The polymer of claim 51, wherein the polymer has a molecular weight of at least 1,000,000 daltons.
60. (New) The polymer of claim 51, wherein the polymer has a low critical solubility temperature of at least about 80°C.
61. (New) The polymer of claim 51, wherein the polymer has a low critical solubility temperature of at least about 90°C.

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[NO FURTHER AMENDMENTS]